

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of	)	
	)	MB Docket No. 02-230
Digital Broadcast Copy Protection	)	
	)	
	)	
	)	

**COMMENTS OF  
PHILIPS ELECTRONICS NORTH AMERICA CORPORATION**

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APPENDIX A – The Effects on Backward Compatibility of a Ban on Analog Outputs

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Philips Electronics North America Corporation (“Philips”) respectfully submits these comments in the above-captioned proceeding concerning use of a broadcast flag to protect against the unauthorized redistribution of digital broadcast television content over the Internet.<sup>1</sup>

**I. INTRODUCTION AND EXECUTIVE SUMMARY**

The *NPRM* identifies insightfully the complex and critical technical and public policy issues associated with the protection of free, over-the-air digital TV from unauthorized Internet redistribution to the public. Will studios withhold high-value content from unprotected broadcast DTV? What is the problem’s immediacy and scope? How can the Commission ensure that a digital broadcast content protection regime will enhance rather than degrade consumers’ DTV experience and will not result in a consumer backlash that will slow the transition? What will be the impact of a regulatory content protection scheme on competition

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<sup>1</sup> See, *In the Matter of Digital Broadcast Copy Protection*, MB Docket No. 02-230, Notice of Proposed Rulemaking, 67 Fed. Reg. 53903 (Aug. 20, 2002) (“*NPRM*”).

and future innovation in key technology markets for consumer electronics devices and content protection technologies? Does the Commission possess authority to remedy this problem, if one exists, or must it await enactment of enabling legislation by the Congress?

Before the Commission adopts any digital broadcast content protection system at this time, it should determine that the nature and urgency of the threat to the DTV transition posed by potential unauthorized retransmission of HDTV and other high-value broadcast digital content over the Internet requires immediate regulatory intervention. Philips respectfully submits that proponents of a broadcast flag-triggered, encryption-based DTV broadcast content protection system have not yet met their burden of demonstrating the need for immediate Commission action, especially where the Commission's authority to regulate in this area is unclear. If the Commission concludes, however, that it must act now, it should define the specific threat and undertake a probing analysis of the costs, effectiveness and consequences of using various competing content protection technologies and methodologies to address that threat.

In that evaluation, the Commission should not be constrained by encryption-based solutions, such as the comprehensive, proprietary, privately-licensed system triggered by the broadcast flag<sup>2</sup> that was considered by the Broadcast Protection Discussion Group ("BPDG").<sup>3</sup> There is no sustainable public policy rationale for rushing to implement an encryption-based broadcast flag solution, with technology such as DTCP (often referred to as "5C") that was not designed nor developed to protect over-the-air broadcast content, that inherently limits all

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<sup>2</sup> As discussed in detail below, the broadcast flag itself is only a series of bits in the DTV bitstream that acts as a signaling mechanism triggering implementation of a content protection technology. The flag itself confers no protection.

<sup>3</sup> See, "Final Report of the Co-Chairs of the Broadcast Protection Discussion Subgroup to the Copy Protection Technical Working Group" (June 3, 2002) ("BPDG Co-Chairs' Report"). As discussed in Section VIII of these Comments, Philips believes the BPDG Co-Chairs' Report, and the process by which it was produced, to be irredeemably flawed.

Internet distribution (including broadband Internet connections), including that among family and friends, and negatively affects home copying, especially while the “analog hole” problem persists. The Commission should consider emerging content protection technologies, including watermarking and/or fingerprinting.

If the Commission determines, however, that immediate action on an encryption-based solution triggered by the broadcast flag is warranted, it should recognize that it is embarking on an extraordinarily complex and intrusive regulatory exercise. Any rules it promulgates should adhere to the following fundamental principles, many of which are reflected in the House Energy and Commerce Committee Staff Draft released in September 2002:

- Preserve the functionality of consumer equipment for lawful, non-commercial use and protect consumers’ fair use expectations;
- Be established and implemented through open, transparent and pro-competitive processes;
- Employ objective technical criteria;
- Be narrowly tailored to address only those content protection problems, if any, found to be impeding the DTV transition;
- Protect the reasonable expectation of the content community to prevent the unauthorized Internet retransmission to the public of content deemed essential to driving the DTV transition (*i.e.*, HDTV or other high-value digital content);
- Promote innovation and rapid roll-out of content protection technologies and consumer electronics products, including those used to record, shift, and store digital content;
- Not enshrine private licensing arrangements that confer, or are capable of conferring, competitive advantages on licensors of particular content protection technologies or systems;
- Promote competition by allowing the use of any competing content protection technology that is conducive to competition, innovation and consumer fair-use expectations so long as it meets certain objective technical criteria; and
- Ensure that compliance and robustness rules determined by the public policy process apply uniformly to receiving devices and to downstream sink and

playback devices that receive content protected using authorized protection technologies.

## **II. STATEMENT OF INTEREST IN THIS PROCEEDING**

Philips has a very proud history—and today is at the cutting edge—of introducing world-class products designed to bring consumers the benefits of the latest digital technologies for television and television displays (including the widescreen television format<sup>4</sup> and flat TV). It is a leader in video compression, storage and optical products, as well as in semiconductor technology.

Philips invented the Compact Disk, or “CD,” the most widely implemented digital technology. Philips is among the leading suppliers of DVD players and DVD recorders, and is a leader in the PC monitor and CD-ReWritable markets.

Philips was a founding member of the Grand Alliance, which pioneered the ATSC DTV standard, and has been a leader in the development and implementation of terrestrial digital television in the United States.

Philips also has been an active participant in the development of content protection technologies. Philips invented, and offered to the consumer electronics industry, at no cost, the Serial Copy Management System, or SCMS, a “bit flag” technology which, by providing the necessary instruction to the recording device as to whether a copy is or is not allowed, prevents the unauthorized reproduction of multiple generations of copies of digital audio works from a copyright-protected original (while permitting a single generation of copies). Philips also is

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<sup>4</sup> On October 3, 2002, Philips received the prestigious Technological/Engineering Emmy Award for its “lifelong contribution” to the development and commercialization of widescreen television.

actively developing watermarking and fingerprinting technology to protect digital video and audio content.

Philips is committed to seeking content protection solutions that strike the proper balance among the consumer, the content owner and the equipment manufacturer. For years, Philips has been a constructive participant in inter-industry content protection activities, and has dedicated millions of dollars and thousands of hours of effort from its best engineers to groups such as the Copy Protection Technical Working Group (CPTWG), the Secure Digital Music Initiative (SDMI), and the Broadcast Protection Discussion Group (BPDG).

Philips' strong record of achievement in technological innovation—and consumer acceptance of these technologies—is directly attributable to the availability and use of open standards, a commitment to preserving consumers' fair use expectations, and a competitive environment that promotes the development and introduction of innovations while not overburdening manufacturers.

### **III. ESSENTIAL BACKGROUND FOR THE NPRM – WHAT IS THE BROADCAST FLAG AND HOW DOES IT RELATE TO DIGITAL CONTENT PROTECTION SYSTEMS?**

Before addressing the myriad public policy questions raised by the “broadcast flag,” it is essential to understand what the broadcast flag is – and is not – and to adopt a framework for analyzing digital content protection systems triggered by the broadcast flag.

The broadcast flag, itself, is nothing but a series of bits carrying a single command – allow retransmission over the Internet, or do not allow retransmission over the Internet – within the digital bitstream. It, alone, confers no protection for the content to which it is attached. The content protection is accomplished by separate digital content protection technologies and systems built into consumer electronics equipment that handles the content. These technologies



may be acquired under license. Under the proposal considered by the BPDG, the “response” would require a “chain” of encryption and decryption of all digital interconnections and digital copies once the broadcast flag is recognized. Such an approach would affect all devices that could possibly be part of a digital home network – including all receiving devices (*e.g.*, DTV receivers, set-top boxes, VCRs, PVRs, etc.) and downstream devices that receive content from those receiving devices (*e.g.*, DVD player/recorders, flat screen and other monitors, computer processors, etc.).

Regardless of which encryption and decryption technologies are used in conjunction with the broadcast flag, their incorporation into a consumer electronics device will be governed by a license, including associated compliance, robustness and encoding rules (collectively, “license terms”). These license terms will directly affect core public policy goals that are essential to both the success of the DTV transition and to the promotion of competition and innovation more generally. Will consumers’ fair use expectations be preserved by the rules governing these encryption technologies? Will digital device manufacturers and technology innovators compete and innovate on a level playing field?

Thus, what is at issue in this *NPRM* is not the regulation of the broadcast flag – the bits; there is no need for regulating them. Instead, the regulation is the mandate on consumer electronics devices to recognize and respond to the broadcast flag. To the extent that this mandate involves encryption-based content protection technologies/systems, such as DTCP (5C) and CPRM (4C), it necessarily involves the creation of a regulatory superstructure to oversee those parts of the system. This regulatory regime necessarily would involve Commission oversight of digital content protection technology licensing terms – and changes thereto – that have the potential to skew the competitive landscape, and the establishment and oversight of fair

and open processes, as well as the creation of objective technical criteria, for the selection of content protection technologies.<sup>5</sup> Indeed, such a regulatory commitment by the Commission is indispensable to implementation of a DTV content protection regime that preserves consumers' fair use expectations, protects competition and innovation in key manufacturing and technology markets feeding the DTV transition, and accelerates the DTV transition.

**IV. THE QUESTION OF WHETHER TO IMPLEMENT A BROADCAST DIGITAL CONTENT PROTECTION SYSTEM NOW MUST BE DRIVEN BY AN ANALYSIS OF THE NATURE AND IMMEDIACY OF THE THREAT, AND THE EFFECTIVENESS OF THE TECHNOLOGY TO ADDRESS A NARROW, IDENTIFIED PROBLEM**

Before adoption of any digital broadcast content protection system can be justified at this time, Philips believes that the threat of unauthorized retransmission to the public over the Internet of broadcast digital content deemed essential to driving the DTV transition (*i.e.*, HDTV and other “high value” content) must be sufficiently defined and urgent – and the proposed solution sufficiently effective and balanced – to warrant immediate action. If the proponents of the broadcast flag – those who seek regulatory intervention – cannot make these requisite showings, the Commission should defer issuing any rule pursuant to this *NPRM*. In any event, however, the Commission should continue to explore emerging content protection approaches that might offer innovative and more comprehensive solutions while being more respectful of consumers' fair use expectations than encryption-based solutions.

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<sup>5</sup> Philips provides specific recommendations on the criteria that should be used in Section VII-B, *infra*.

**A. The Scope of the Asserted Problem.**

**1. What Digital Broadcast Content Is To Be Protected?**

There is a consensus that HDTV and other “high value added” digital programming is a key driving factor in propelling the DTV transition. Indeed, the Commission’s contemplation of digital content protection in the first place flows from a concern that the lack of such protection might inhibit the availability of “high quality programming...broadcast digitally,” thereby making consumers “reluctant to invest in DTV receivers...” and thus “delaying the DTV transition.”<sup>6</sup> Moreover, broadcasters also express concerns about HDTV and other “revolutionary” digital programming migrating to pay services such as cable or DBS absent effective content protection mechanisms to prevent unauthorized widespread retransmission of such broadcasts over the Internet.

Therefore, to the extent the Commission’s involvement in digital content protection derives from its determination, reinforced by the Congress, to accelerate the DTV transition, it should focus on protecting HDTV and other “high value digital content.” Philips recognizes that content owners’ copyright interests apply to all of their works, regardless of their perceived “quality.” However, the rationale for Commission action to protect standard definition DTV content that is not a driver for the DTV transition is attenuated.

**2. The Scope of DTV Content Protection.**

Not all retransmissions of protected HDTV content (or any protected content) over the Internet should be technologically precluded or legally prohibited. Consumers of free, over-the-air television should be permitted to send their favorite programs over the Internet to their own

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<sup>6</sup> *NPRM* at 1.

second homes, vehicles or boats, and to their family and friends, as long as reception can be limited, in the words of the Copyright Act, to within “a normal circle of a family and its social acquaintances.”<sup>7</sup> Such uses are consistent with the legally established rights of copyright users, promote the “public benefit” espoused in the Copyright Clause of the U.S. Constitution and copyright case law, and are entirely appropriate in light of broadcasters’ receipt of spectrum for the purpose of providing digital television (including HDTV) to the public.

While copyright owners have a legitimate interest in protecting the markets for their works, the Copyright Act is predicated on balancing the incentives to copyright owners (creators) with the public interest in accessing their creations.<sup>8</sup> Accordingly, copyright owners’ rights are limited,<sup>9</sup> and are subject to numerous statutory exceptions, including fair use.<sup>10</sup> Of the four relevant “fair use” factors recited in the Copyright Act, the most important is “the effect on the potential market for the copyrighted work.”<sup>11</sup> It is well established that private recording for “time-shifting” television programs, *i.e.*, in order to watch them at a later time of convenience, has no adverse effect on the market and is a fair use.<sup>12</sup> Indeed, as discussed at length by the Supreme Court in *Sony*, permitting consumers to utilize technology facilitating the viewing of broadcast television programs “actually enhances the value of . . . copyrights [in the programs],”

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<sup>7</sup> See 17 U.S.C. § 101 (definition of “to perform or display a work ‘publicly’”).

<sup>8</sup> See U.S. Constitution, Article I, cl. 8 (“The Congress shall have Power . . . To Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the Exclusive Right to their respective Writings and Discoveries”); *Sony Corporation v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) (Congress’ task assigned by the Copyright Clause requires “a difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society’s competing interest in the free flow of ideas, information, and commerce on the other hand.”).

<sup>9</sup> See, *e.g.*, 17 U.S.C. § 102 (limiting extent of copyright)

<sup>10</sup> See 17 U.S.C. § 107.

<sup>11</sup> *Id.*; *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 566 (1985).

<sup>12</sup> See *Sony*, 464 U.S. 417, 451-56.

“makes it possible for more persons to view [the] broadcasts,” and is permitted and encouraged by numerous broadcasters.<sup>13</sup> Similarly, digital recording for purposes of “space shifting” (e.g., to render portable a digital file stored on a hard drive) has been found to be a “paradigmatic non-commercial personal use” akin to the time-shifting addressed in *Sony*.<sup>14</sup>

There is no evidence (and copyright owners have thus far not claimed) that private retransmission of free broadcast television (e.g., to family and friends) is, economically, any different from private recording for time-shifting and space-shifting. Like private taping and portable digital recording, such retransmission increases viewership, making it more convenient for more consumers to watch the programs of their choice, including programs that have been recommended by trusted friends and family.<sup>15</sup>

Likewise, the copyright owner’s statutory, exclusive right of “public performance” does *not* include performances within or to “a normal circle of a family and its social acquaintances.”<sup>16</sup> Courts interpreting this definition consistently have noted that it reflects the legal and economic differences between the private or personal use of entertainment content, and making such content available to the public.<sup>17</sup>

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<sup>13</sup> *Sony*, 464 U.S. 417, 445, 446 n. 28, 454.

<sup>14</sup> *Recording Industry Associate of America v. Diamond Multimedia Systems*, 180 F.3d 1072, 1079 (9<sup>th</sup> Cir. 1999).

<sup>15</sup> *See Sony*, 464 U.S. 417, 446 n. 28, 454 (noting potential benefits of increased viewership in the advertisement and ratings-driven television market).

<sup>16</sup> *See* 17 U.S.C. § 101 (definition of “to perform or display a work ‘publicly’”).

<sup>17</sup> *See, e.g., Columbia Pictures Industries, Inc. v. Professional Real Estate Investors, Inc.*, 866 F.2d 278, 280-81 (9<sup>th</sup> Cir. 1989) (noting that viewing a program in a hotel room is like doing so in one’s private home, in that it is not “open to the public” and provides “a substantial degree of privacy,” and that “a gathering of one’s social acquaintances is normally regarded as private” and thus does not implicate the public performance right); *see also Broadcast Music, Inc. v. Claire’s Boutiques, Inc.*, 949 F.2d 1482, 1488 (7<sup>th</sup> Cir. 1991); *Bagdadi v. Nazar*, 84 F.3d 1194, 1199 (9<sup>th</sup> Cir. 1996)..

Indeed, draft legislation circulated by the staff of the House Energy and Commerce Committee addressing the digital television transition, released in September 2002, for example, establishes the scope of protection as “distribution *to the public* over the Internet.”<sup>18</sup> Senior Members of that Committee, such as Representatives Markey and Boucher, also have expressed specifically the view that Internet retransmission of broadcast DTV content within a circle of family members and friends should not be restricted.<sup>19</sup>

Currently, the encryption-based content protection technologies that have been proposed to respond to the broadcast flag are incapable, technologically, of permitting private, noncommercial Internet redistribution of flagged content over the Internet to family and friends while preventing such Internet redistribution to the public. This is a significant technological flaw directly impinging on consumers’ fair use expectations. It warrants or perhaps requires the Commission to investigate other content protection technologies that do not pose that danger.

**B. Do the Threat of Unauthorized Retransmission of Broadcast HDTV and the Effectiveness of the Proposed Solution Warrant Immediate FCC Action?**

In light of the potential harm to consumers’ fair use expectations and the attendant dampening of consumer enthusiasm for DTV, advocates of a broadcast flag mechanism must bear the burden of proving the immediacy of the need. That is an extremely difficult burden to sustain at this time, in light of the continuing existence of the “analog hole” and the practical, technological limitations of computer technology available to consumers.

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<sup>18</sup> See discussion at Section VI, *infra*.

<sup>19</sup> See, Ensuring Content Protection in the Digital Age: Hearing Before the Subcomm. on Telecommunications and the Internet of the House Comm. on Energy and Commerce, 107th Cong. 74 (2002); *see also* Consumer Issues at Forefront of DTV Hearing, Communications Daily, September 26, 2002, at 3.

Today, unfettered retransmission of broadcast content, including digital content “protected” by a technology triggered by the broadcast flag, is possible by passing that content through an unprotected analog output (found on virtually any consumer device) and then re-digitizing content using an analog-to-digital converter. Due to technological limitations, analog outputs cannot be encrypted, and the broadcast flag is not preserved when the content to which it is attached passes through an unprotected analog output. The end product of this relatively simple process is precisely what content owners seek to prevent using the broadcast flag: unencrypted digital content that can be retransmitted over the Internet. This process is what is referred to as the “analog hole.”

While one solution – banning all analog outputs – might seem relatively simple, such an approach is utterly untenable from a consumer perspective and, derivatively, not politically feasible.<sup>20</sup> Banning all analog outputs would create a horrific legacy equipment problem, rendering obsolete hundreds of millions of products previously purchased by consumers which rely on analog outputs – conspicuously including early adopters’ HDTV receivers and displays.<sup>21</sup> As the Commission can imagine, this would incite nothing less than a consumer rebellion that would halt the DTV transition in its tracks. Importantly, banning analog outputs also would make impossible any digital-to-analog set-top box, which consumers will need to service the 200 million-plus analog TVs and VCRs, once analog broadcasts end. Additionally, such a ban would

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<sup>20</sup> Indeed, during a September 25, 2002, hearing of the House Subcommittee on Telecommunications and the Internet on the Committee Staff Draft, which includes language that would ban all analog outputs as of July 1, 2005, a number of Subcommittee members – most notably full Committee Chairman Tauzin – expressed grave concerns about the negative impact of this proposal on consumers. *See*, Bill McConnell, DTV Picture Far From Clear, *Broadcasting & Cable Online* September 30, 2002. *See also*, Consumer Issues at Forefront of DTV Hearing, *Communications Daily*, September 26, 2002, at 2.

<sup>21</sup> The extent of the legacy equipment problem is depicted on the chart addressing backward compatibility, which is attached as Appendix 1 to these Comments.

create an enormous disposal of consumer electronics equipment problem with attendant costs and strain to local infrastructures. Finally, analog interfaces between devices and analog recording technologies offer consumers significant benefits (including affordability, simplicity and high quality) that should not easily be eliminated by fiat from the marketplace.

Consequently, until a technology is developed to protect content over analog interfaces and in analog recordings, broadcast DTV will remain vulnerable to digitized content retransmission as is the case if DTV remained unprotected. For the Commission to padlock and bar the digital “front door” while the analog “back door” is left wide open makes little public policy sense.

Moreover, the state of consumer broadband technology largely mitigates the immediacy of the threat of widespread redistribution of digital content over the Internet. First of all, the vast majority of consumers do not have the necessary bandwidth to engage in widespread uploading and downloading of HDTV content to and from the Internet. In fact, today and for the foreseeable future, sending broadcast HDTV (*i.e.*, the high value works deemed critical to driving the transition to DTV) over the Internet in any reasonable amount of time (*i.e.*, 30 minutes or less) requires such a level of compression as to necessarily degrade the signal well below its native high definition resolution. By contrast, using today’s Internet technology, it would take approximately 25 hours using a 1.5 Mbps broadband connection, and 28 days using a more common 56 Kbps telephone modem, to retransmit a 2-hour HDTV broadcast movie in its native resolution.<sup>22</sup> Even a 2-hour SDTV broadcast would take approximately 5 hours to

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<sup>22</sup> Estimates of normal broadband/dial-up modem transfer rates above are conservative; actual rates are typically lower (for instance, broadband connections typically provide speeds significantly less than 1.5 Mbps). Furthermore, many Internet Service Providers would not tolerate full bandwidth transfer lasting 25 hours.



retransmit in its native resolution using a 1.5 Mbps broadband connection, or 142 hours over a 56 kbps dial-up modem.<sup>23</sup>

Notwithstanding these technological constraints limiting the real world risks associated with unauthorized redistribution of HDTV and other high value digital content to the public over the Internet, there remains a genuine question about whether content owners believe the risk is sufficient that they will withhold such content if the FCC does not implement a digital content protection solution reasonably quickly. Clearly, the major broadcast networks are broadcasting increasing amounts of prime time and premier sports programming in HDTV, partly in response to Chairman Powell's April 4, 2002, voluntary initiative.<sup>24</sup> Only the major broadcast networks and their content suppliers can provide the definitive answer to this inquiry and the related question of whether they may still withhold top tier HDTV and other programming even if the broadcast flag is implemented but the issue of how to protect analog outputs is left unresolved. A clear understanding of program producers' intentions in this regard will be helpful to the Commission as it evaluates the need for and timing of a content protection regime for digital broadcast programming.

**C. The Commission Has an Obligation to Investigate Emerging Content Protection Technologies That Promise More Effective and Comprehensive Solutions to the Actual and Identifiable Problems**

In light of the lack of a solution to protect analog content and the technological limitations discussed above, the Commission should explore alternative digital broadcast content protection solutions. Since the rise and fall of Napster, the level of interest worldwide in digital

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<sup>23</sup> Again, these transfer rates are conservative.

<sup>24</sup> See, Letters from The Honorable Michael K. Powell to The Honorable Ernest F. Hollings and W.J. "Billy" Tauzin, *Proposal for Voluntary Industry Actions to Speed the Digital Television Transition*, (April 4, 2002).

content protection technologies has skyrocketed. This phenomenon has been mirrored in the public policy arena. Given the expanding level of resources and research dollars being devoted to this issue, it is virtually certain that new digital content protection technologies and methodologies will emerge. Some likely will be both more comprehensive in their sweep, yet more respectful of consumers' fair use expectations, than the current generation of encryption-based systems.<sup>25</sup> Whatever the Commission does in this proceeding, it must ensure that the opportunity remains available to introduce new, innovative digital content protection solutions for DTV and other applications. An open door will spur creative competition among some of the foremost research companies and best minds in the world. Locking in existing digital content protection systems can only stifle innovation to the detriment of consumers.

**V. IF THE COMMISSION CONCLUDES THAT BOTH THE THREAT TO DIGITAL CONTENT AND THE AVAILABILITY OF EFFECTIVE SOLUTIONS WARRANT ADOPTION OF A DTV CONTENT PROTECTION SYSTEM AT THIS TIME, ANY SPECIFIC RULES IT PROMULGATES SHOULD ADHERE TO CERTAIN FUNDAMENTAL PRINCIPLES**

If the Commission nonetheless determines that immediate adoption of a DTV content protection regime is warranted, Philips respectfully suggests that any implementation of such a regime abide by the following fundamental principles:

- Preserve the ability of consumers to use their equipment for lawful, non-commercial purposes, rather than treat consumers as would-be criminals, to make acceptance of the DTV transition desirable for consumers;

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<sup>25</sup> For instance, watermarking and/or fingerprinting architectures could create formidable obstacles for any person wishing to place their personal copies on the Internet without rendering obsolete any equipment currently in use or threatening consumers' fair use expectations. Such solutions could mitigate Internet retransmission to a considerable degree. Notably, watermarking is the only technology that allows the reclamation of content that has already been placed on a file-sharing system. Unlike encryption-based systems, which are either absolutely secure or fail absolutely, a properly designed watermarking system can conspire to limit the utility of improperly distributed content to the point where placing copyrighted material on a file-sharing system becomes a useless act.

- Be established and implemented through open processes in which the public has a full opportunity to comment and, if necessary, petition for change, rather than be the exclusive province of private parties with vested interests;
- Be based on objective technical criteria;
- Be narrowly tailored to address only those digital content protection problems, if any, that are demonstrably impeding the DTV transition, rather than be overinclusive or underinclusive;
- Protect the reasonable expectation of the content community in preventing the unauthorized retransmission to the public of HDTV or other high-value digital content over the Internet in a way that preserves consumers' reasonable fair-use expectations.
- Promote innovation and rapid roll-out of content protection technologies and consumer electronics products, including those used to record, shift, and store digital content;
- Not enshrine private licensing arrangements that confer, or are capable of conferring, competitive advantages on licensors of particular content protection technologies or systems;
- Allow any competing content protection technology that is conducive to competition, innovation and consumer fair-use expectations so long as it meets certain objective criteria; and
- Ensure that compliance and robustness rules apply uniformly to receiving devices and to downstream sink and playback devices.

Adhering to these core principles is essential to ensuring that approved DTV content protection technologies create opportunities—not dangers—for consumers, manufacturers, software designers and other DTV innovators while accomplishing the essential but narrow purpose of protecting HDTV and other high value digital broadcast content from unauthorized retransmission over the Internet to the public at large.

**VI. PENDING MORE DEFINITIVE CONGRESSIONAL ACTION, THE HOUSE ENERGY AND COMMERCE COMMITTEE’S SEPTEMBER 2002 STAFF DRAFT PROVIDES VALUABLE GUIDANCE TO THE COMMISSION ON IMPLEMENTATION OF THE BROADCAST FLAG**

Following the Commission’s adoption of the *NPRM*, the bipartisan staff of the House Energy and Commerce Committee, under the direction of Chairman Tauzin and Ranking Democrat Dingell, released a draft of comprehensive DTV legislation that addresses directly the issue of the broadcast flag and its implementation.<sup>26</sup> Philips suggests that Section 5 of the Committee Staff Draft, supplemented by the Philips principles enumerated above, serve as a baseline from which the Commission moves forward in the event it concludes that any regulation of consumer electronics equipment with respect to the broadcast flag is necessary at this time. Specifically, Section 5 of the Committee Staff Draft would require implementation of the broadcast flag in a manner that:

- Protects consumers’ ability to enjoy the full functionality of equipment intended for lawful, non-commercial use, and prohibits technology licensing terms, including any associated compliance, robustness and encoding rules, that would diminish such functionality;<sup>27</sup>
- Relies on objective and technology neutral criteria, established in an open and public process by the Commission, for identifying viable protection technologies;<sup>28</sup>
- Limits the scope of any protection system aimed at the Internet to retransmissions to the public at large;<sup>29</sup>

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<sup>26</sup> “Staff Discussion Draft, H.R. \_\_\_, To require the Federal Communications Commission to take actions necessary to advance the transition to digital television service, and for other purposes,” (Rel. Sept. 18, 2002) (“Committee Staff Draft”).

<sup>27</sup> *Id.* at new Section 340(b)(2)(C) and (b)(5)(A).

<sup>28</sup> *Id.* at new Section 340(b)(2).

<sup>29</sup> *Id.* at new Section 340(b)(2)(A).

- Requires technology licensing terms to be narrowly tailored to only prevent theft of services;<sup>30</sup>
- Prohibits content protection technologies that place unnecessary or unreasonable burdens on product design or manufacture, or that stifle innovation;<sup>31</sup> and
- Provides for an expedited process, including self-certification, by which DTV content protection technologies are approved by the FCC.<sup>32</sup>

But perhaps most instructive about the Committee Staff Draft is that it would NOT:

- Allow controlling entities to diminish consumers' lawful, non-commercial use of their equipment;
- Pre-ordain a particular technology;
- Give any industry segment unfettered control over “authorized technologies” such that they might gain important market advantages, such as lead time to market, or have a stranglehold on innovation;
- Give controlling entities the ability to shape associated compliance and robustness rules to the disadvantage of their competitors; or
- Allow controlling entities to obtain advance market intelligence about their competitors' products.

In short, the Committee Staff Draft, quite wisely, does not “anoint” the BPDG Co-Chairs' Report. Although the Committee Staff Draft acknowledges the broadcast flag as a tool to protect digital broadcast content, it also insists upon protecting the full functionality of equipment for legal, non-commercial use by consumers, promoting competition, and fostering innovation.

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<sup>30</sup> *Id.* at new Section 340(b)(5)(B).

<sup>31</sup> *Id.* at new Section 340(b)(2)(B).

<sup>32</sup> *Id.* at new Section 340(b)(1).

## **VII. ESTABLISHING A REASONABLE AND PRO-CONSUMER APPROACH TO BROADCAST DTV PROTECTION**

If and once the Commission determines that the establishment of a government-imposed content protection system is warranted, the question becomes how to apply the core public policy principles of protecting consumer fair use expectations, preserving competition and promoting innovation, reflected in the Committee Staff Draft and endorsed by Philips, in a manner that provides meaningful and effective protection for digital broadcast HDTV content (or any other DTV content the Commission determines is the appropriate subject of protection, as discussed above). To that end, Philips offers the following specific recommendations:

### **A. Any Digital Broadcast Content Protection Regime Must Preserve Consumers' Fair Use Expectations.**

If digital content protection solutions degrade consumers' digital experience in relationship to digital expectations and analog background, the experience will trigger a consumer backlash against the DTV transition, more than offsetting the potential benefits to the transition of DTV content protection. Any limitations on consumers' ability to use and manipulate DTV that exceed those applied today to analog television will slow the DTV transition. Conversely, the transition will move more smoothly and rapidly if the great flexibility of digital technology is allowed to enhance the consumer experience by facilitating storage, processing, organization and handling of content.

*The Commission Should Ensure That No Content Protection Technology Is Employed That Limits Consumer Copying Of Broadcast Content In Any Way.* Similarly, encryption should not be employed in ways that inhibit the public's ability to manipulate or process content within a device. Consumers expect to be able to record over-the-air broadcast television. They expect to be able to play back those copies on any similar format player, regardless of where it is

located, and to skip over content that does not interest them. The digital transition cannot be permitted to limit these capabilities.

*The Compliance Rules Applicable To Receiving Devices And To The Output And Recording Technologies Are Critical.* The former dictate how consumers may use their receiving devices to handle content; the latter dictate how consumers may use “sink” (in the case of interface technologies) or playback (in the case of recording technologies) devices to handle the content (e.g., whether recordings may be made and how they may be made and what outputs may be used). There is no justification for allowing private parties to impose different and more restrictive rules on downstream sink and playback devices than are imposed on devices that receive DTV content over-the-air in the first instance. It is for that reason that Philips strongly believes that all compliance and robustness rules applicable to DTV content should be adopted and implemented in an open public policy-driven process and that the rules for receiving, sink and playback devices should be the same, regardless of where in the device chain a given product is found.

*Technologies That Permit Consumers To Engage Freely In “Fair Use” Activity Should Be Favored.* Thus, for example, if a technology permits consumers to send a program over the Internet to a family member away on business or attending college, or to a summer home, while preventing Internet retransmission to the public at large, it should have an edge over competitive content protection incapable of so differentiating. Conversely, a technology that inhibits fair use should be regarded skeptically.

*The Adoption Of A Content Protection Regime That Requires The Use Of Encrypted Digital Recordings Should Be Viewed Critically.* Consumers have continued to purchase digital playback devices (such as DVD players) with the expectation that they will be able to use those

devices in the future to play back digital recordings made by other devices using the same format. The fair use expectation to record necessarily embraces the expectation to play back. Any system that requires the encryption of recordings will preclude consumers from using their existing playback devices to play those future recordings of DTV. Such a rule should not be implemented in the absence of a compelling showing of need, which has so far not been made.

The Committee Staff Draft, as noted *supra*, recognizes the importance of these principles. The Draft provides that the Commission should ensure that its broadcast protection rules “do not result in altered or diminished functionality of a consumer’s digital television reception and recording equipment as intended for legal noncommercial use.”<sup>33</sup> A system that inhibits legitimate use of playback devices clearly alters and diminishes functionality. Further, the Committee Staff Draft limits the rules to those “that are no broader in scope than necessary to implement the requirements of this section.”<sup>34</sup> A technology that inhibits consumer fair use is not necessary to implement broadcast protection against Internet retransmission to the public.

**B. Any Digital Broadcast Content Protection Regime Must Preserve Competition and Innovation In The Content Protection and Digital Equipment Technology Markets**

Just as specific measures are necessary to translate the goal of preserving consumers’ fair use expectations into reality, concrete FCC actions also are essential to preserving competition and innovation in the content protection and digital equipment technology markets.

**The FCC Should Adopt a Uniform Set of Reasonable Compliance and Robustness Rules.**

There is no justification for allowing private parties to impose rules for the handling of broadcast content on *downstream devices* that are any different from those that are imposed by the

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<sup>33</sup> *Id.* at new Section 340(b)(5)(A).

<sup>34</sup> *Id.* at new Section 340(b)(5)(B).



Commission on *receiving devices*. Further, the ability to manipulate compliance and robustness rules provides the controlling entities with the ability to threaten competition and innovation in both consumer devices and competing protection technologies.<sup>35</sup>

*Proposed Content Protection Technologies Should Be Measured According to Objective, Technical Criteria.* Consistent with the Committee Staff Draft, proposed digital content protection technologies should be measured against a set of objective technical criteria. Establishing such clear, objective criteria would promote competition and innovation by making it easier to bring content protection technologies, and devices that employ them, to market. A regulatory body could also identify “safe-harbor” protection technologies, and manufacturers could self-certify compliance of new content-protection technologies and electronics devices. Philips suggests that the Commission might draw upon the technical resources and expertise of the National Institute of Standards and Technology within the Department of Commerce in accomplishing these tasks.<sup>36</sup>

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<sup>35</sup> For example, both the DTCP and CPRM compliance rules provide their own list of approved output and record protection technologies that may well diverge from the list of technologies approved by the FCC-mandated process. Sink devices and playback devices may only use technologies on the approved 5C and 4C lists (respectively). Such a rule, if permitted, would grant the entities that control FCC-approved technologies the ability to foreclose other technologies from widespread use, even if the FCC process later approves the competing technology. Similarly, unlike the rules proposed for receiving devices, the DTCP rules prohibit integrated PVRs from making unencrypted copies, *even though those copies cannot be removed from the device on which they are made*. As a result, manufacturers will be limited in their ability to offer consumers innovative means of manipulating, organizing and storing the content.

<sup>36</sup> Such self-certification and expedited safe-harbor procedures would meet the objectives, articulated in the Committee Staff Draft, that a content protection regime “recognize and utilize multiple technologies that have been developed by private industry,” and “take into account technological advances subsequent to the adoption of [objective] criteria.” See Committee Staff Draft at new Section 340(b)(2)(D)(ii)-(iii).

The specific criteria upon which Philips believes any acceptable content protection technology should be judged include the following:<sup>37</sup>

- Any broadcast flag technology should be designed such that defeating or avoiding the technology would require either: 1) use of a device that is beyond the ordinary capability of an ordinary user to construct; or 2) acquisition of the keys to an encryption system that is at least 56 bits in length. When protected content is digitally output, transmitted, or recorded over a digital interface, the technology should also ensure that the content continues to contain information marking it as protected.
- The technology should confirm that devices receiving marked content comply with the digital output, recording and compliance rules. The technology should accomplish such authentication in a way that prevents unauthorized snooping on the interface. The technology should not, however, allow content providers to mark content in a manner that restricts its use in ways beyond those reasonably necessary to prevent unauthorized redistribution to the public over the Internet.
- The specifications of the technology and the compliance rules that govern its use should be final and clearly defined. Indeed, neither the technology nor the rules should be subject to change (other than to correct truly non-functional errors, such as typographical errors) except through a consensus process that: 1) involves both licensees and content providers; 2) allows time for implementation (ordinarily not less than 18 months); and 3) provides adequate notice before approval or implementation of any change to ensure that no one has any advantage in implementation.
- The technology should be made available under license to third-parties pursuant to fair, reasonable, and nondiscriminatory terms and conditions. Such terms and conditions must not restrict use of covered broadcast content in ways unrelated to the goal of preventing unauthorized redistribution to the public. Output and recording technologies authorized for use with an approved broadcast flag technology should allow use of digital outputs and recordable media protected by other approved technologies without requiring additional approval.
- There should also be a defined, neutral process for evaluating a technology against these criteria. Moreover, no output technology should be approved until a certain minimum number of competing output technologies are also approved. Similarly, no recording technology should be approved until a minimum number of competing recording technologies have been approved.

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<sup>37</sup> Philips originally proffered these criteria, in slightly different form, to the BPDG, and they were included (at Tab G) in the BPDG Co-Chairs' Report.

*The Commission Should Create One Set of Open Standards, Subject to Public Input and Oversight.* Creating one set of open standards, subject to public input and government oversight, also would prevent any industry segment from commandeering the content protection regime. No subset of participants could change the rules to their benefit, take control of product design, or claim approval rights and control competition in downstream encryption technologies. Any technology allowed to handle content for devices that receive/demodulate broadcast DTV content would be allowed to handle content in downstream products. An open standards-setting process also would prevent anticompetitive abuses such as ensuring that industry competitors are not able to take advantage of advance, inside knowledge and/or lead time to market.

Importantly, *the standards also must apply to all products in the DTV chain.* Such an approach would ensure that no one device in the chain is vulnerable to attack as the weakest link and that all devices share the content-protection burden equally. If different products are subject to different rules, some devices would inevitably be prohibited from incorporating features available in other devices, such as the ability to store unencrypted copies of content, making certain devices less desirable and limiting the ability of manufacturers to tailor the functionalities of their products to enable new and intriguing uses.

*Content Protection Technology Should Not Impose Unreasonable Burdens on Product Design or Manufacture.* To preserve the ability to innovate, the content protection technology should not impose unreasonable burdens on product design or manufacture, and should be compatible with all functionalities of consumer equipment manufactured before January 1, 2006, as well as with non-infringing transmission over the Internet and within a consumer's personal network.

Any Safe Harbor Technology Should Be Made Available Under Reasonable And Non-Discriminatory License Terms. Any technology that is adopted as a “safe harbor” will have a head start in becoming a *de facto* standard. As such, any safe harbor technology should be made available under reasonable and non-discriminatory license terms and any changes to the technology or licenses should be subject to public policy review. The ability to change the technology, or the license or rules governing a technology, can provide insiders with advance knowledge, lead time to market and thus an unwarranted competitive advantage. Further, safe harbor technology should be made available under licenses that relate only to the handling of broadcast DTV content. To do otherwise would allow the proponent licensors to use the DTV mandate to leverage their control into the handling of other content. Such licensing tactics would interfere with the operation of markets for the design and sale of products designed to handle digital audiovisual content as well as markets for the design and development of competing content protection technologies. To ensure that competitors have an opportunity to develop rival systems, any license terms, including compliance and robustness rules, associated with a safe harbor content protection technology also must not be subject to nondisclosure agreements.

**VIII. THE BPDG REPORT RESULTED FROM A FLAWED PROCESS, DOES NOT ACCOMMODATE CONSUMER FAIR USE EXPECTATIONS, AND THREATENS COMPETITION AND INNOVATION**

Philips has been outspoken in expressing its concerns about the BPDG Co-Chairs’ Report, and the FCC should not adopt the technology discussed in that Report as the template for a governmentally imposed content protection regime. The process by which the BPDG Co-Chairs’ Report discussed only a single proposal was flawed. Moreover, that proposal does not adequately accommodate consumer fair use expectations, and threatens both competition and innovation.

The BPDG initially was designed as a forum of experts to flesh out a proposal for the protection of broadcast digital content. It was not tasked with making public policy recommendations, nor could it take on such a task in light of the tight time constraints. Thus, key public policy issues implicated by the BPDG Co-Chairs' Report remained unresolved, including: (1) whether the proposed content protection technology should prevent Internet retransmission to the public or provide more restrictive protection; (2) whether such protection should extend only to high definition transmissions or all digital content; (3) how to address re-digitization of in-the-clear, high-quality analog output; and (4) how soon, in light of current Internet bandwidth constraints and the existence of unprotected analog outputs, will the threat to high quality digital broadcasts warrant imposing the costs of a content protection regime, both on manufacturers and consumers. Finally, the BPDG had no rules to govern participation in the forum or procedures to reconcile differing viewpoints.

As a result, the BPDG Co-Chairs' Report correctly noted that there was no consensus among the BPDG's participants.<sup>38</sup> Most meaningful negotiations occurred behind closed doors among a small group of participants. The proponents of any particular content protection regime must not also be its judge and jury. No one subset of industry should be left to determine whether a specific technological solution works. A robust content protection regime must be born of a more inclusive process with an eye toward both public participation and the public interest.

To serve that public interest, a content protection mechanism must accommodate reasonable consumer expectations. The BPDG Co-Chairs' Report falls short of that goal.

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<sup>38</sup> BPDG Co-Chairs' Report at 6.

Consumers currently enjoy the ability to transfer content within a “personal network” of devices and among formats for their own non-commercial use. The BPDG’s approach does not adequately address consumers’ expectations that they will continue to be able to do so. Indeed, the proposal does not even define the scope of the personal network, which has been variously described to include primary residences, secondary residences, workplaces, cars, personal computers, laptops, personal audio and video devices, and family members. Nor does the proposal provide a means for differentiating between content use within a personal network and Internet dissemination to the public.

The proprietary control of content protection rules and standards themselves, as considered by the BPDG, also stifles competition and innovation. Under the BPDG’s approach, transmission or recording of flagged digital content could be accomplished only if the content is encrypted using “approved” proprietary technologies.<sup>39</sup> Compliance rules would govern the handling of content. Robustness rules would govern product design. The approved technologies, the licensing terms under which they would be available, and the compliance and robustness rules would all be controlled by private entities subject only to private negotiations. In other words, other licensees, consumer representatives, legislators and public policy officials would be excluded.

Consequently, the policies and technical solution considered by the BPDG would allow a small group to determine the rules that govern product manufacture and permissible content use, and that bind consumers and the controlling entities’ own competitors. The rules that these private parties establish would give them a degree of control that would enable them to gain

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<sup>39</sup> *Id.* at Tab C-2.

important market advantages for their products, such as lead time to market, and to obtain advance market intelligence about competitors' products. They could use the broad scope of their licenses to coerce rights to other technologies, to control consumer use of content, and to disable consumer devices.

Moreover, for competition and innovation to flourish, all downstream devices must be able to move content around the personal network once it has been received. The approach discussed by the BPDG, however, contemplates encryption of DTV content every time it is transmitted around the home or recorded on removable media. It must then be decrypted once again for viewing. Thus, the obligations to protect DTV broadcast content would not stop with the device that receives the content over the air. That device would be permitted to pass the content over digital interfaces for copying or transmission only to other products that are subject to their own privately negotiated content-protection licenses and robustness and compliance rules. The result is a theoretically closed chain of encrypting and decrypting devices. Under such a regime, all devices would be burdened with multiple encryption and decryption technologies, adding costs to manufacturers and consumers. This would both hinder competition and stifle innovation by manufacturers and consumers.

#### **IX. FCC AUTHORITY TO REGULATE THE WAY CONSUMER ELECTRONICS DEVICES REACT TO A BROADCAST FLAG IS UNCLEAR**

The Commission's existing authority under the Communications Act to require consumer electronics devices to recognize and respond to the broadcast flag is unclear. Regulating the way broadcasters transmit the flag is one thing. After all, the flag is simply bits in the digital broadcast signal bitstream, and the FCC has broad and explicit authority over broadcasters and

their transmissions.<sup>40</sup> Regulating the way equipment reacts to that flag is another matter. Encryption-based digital content protection is not about the transmission or reception of broadcast signals. It is about the design and operation of consumer electronics devices when they detect content subsequent to DTV broadcast signal transmission and reception. Manufacturers are not licensed broadcasters.

In prior instances in which the FCC has regulated consumer electronics devices, Congress has enacted enabling legislation that grants the FCC specific authority over narrowly defined features and functions of those devices. Only thereafter does the FCC promulgate regulations. Before the FCC required televisions to receive all UHF and VHF channels, for example, Congress passed the 1962 All Channel Receiver Act.<sup>41</sup> Originally, the legislation would have granted the FCC broad authority to set performance standards for television receivers.<sup>42</sup> The legislation was criticized, however, for providing the FCC too large a role in receiver design.<sup>43</sup> Consequently, it was amended to only “require that apparatus designed to receive television pictures broadcast simultaneously with sound be capable of adequately

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<sup>40</sup> See 47 U.S.C. tit. III.

<sup>41</sup> Pub. L. No. 87-529, 76 Stat. 150 (codified at 47 U.S.C. §§ 303(s), 330(a)).

<sup>42</sup> See S. REP. NO. 87-1526 (1962), *reprinted in* 1962 U.S.C.C.A.N. 1873, 1879.

<sup>43</sup> *Id.* In hearings before the Senate Commerce Committee, Sen. Kenneth Roberts stated that “[t]he FCC should not have the power to require that all sets be color sets, or have a certain size of picture tube or be made with a certain size speaker and so forth. Electronic Indus. Ass’n. Consumer Elec. Group v. FCC, 636 F.2d 689, 694 (D.C. Cir. 1980) (citing *All-Channel Television Receivers: Hearing on S. 2109 before the Subcomm. on Communications of the Senate Comm. On Commerce*, 87<sup>th</sup> Cong. 59 (1962)). Similarly, during hearings on the bill before the House Committee on Interstate and Foreign Commerce, industry officials criticized the proposed language because it “provides too broad an authority to prescribe ‘minimum performance capabilities.’” *Id.* (citing *All Channel Television Receivers and Deintermixture: Hearings on H.R. 8031 Before the House Comm. On Interstate and Foreign Commerce*, 87<sup>th</sup> Cong. 274 (1962) (testimony of W. Walter Watts, RCA Corp.)).



receiving all frequencies,” with the specific goal of limiting its applicability to reception of UHF channels.<sup>44</sup>

Similarly, before the FCC required closed-captioning, Congress passed the 1990 Television Decoder Circuitry Act,<sup>45</sup> which authorized the FCC to require manufacturers to equip televisions “with built-in decoder circuitry designed to display closed-captioned television transmissions.”<sup>46</sup> Congress was clear that it was “not the intent of the bill to require, directly or indirectly, standardization of a specific decoding chip or specific decoding circuitry.”<sup>47</sup> Before the FCC required the V-Chip, Congress passed the Parental Choice in Television Programming provisions of the 1996 Telecommunications Act,<sup>48</sup> which authorized the FCC to require manufacturers to equip televisions with “a feature designed to enable viewers to block display of all programs with a common rating.”<sup>49</sup> In doing so, Congress instructed the FCC to preserve for manufacturers the option of using “alternative technology that meets certain standards of cost, effectiveness and ease of use.”<sup>50</sup>

This well established pattern of a specific congressional grant of authority as a pre-requisite to FCC regulation of consumer electronics operation and functioning<sup>51</sup> is replicated in

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<sup>44</sup> See H.R. REP. NO. 87-1559, at 1 (1962); S. REP. NO. 87-1526, at 1873, 1880.

<sup>45</sup> See Pub. L. No. 101-431, 104 Stat. 960 (1990) (codified at 47 U.S.C. §§ 303(u), 330(b)).

<sup>46</sup> 47 U.S.C. § 303(u).

<sup>47</sup> S. REP. NO. 101-393, at 9 (1990), *reprinted in* 1990 U.S.C.C.A.N. 1438, 1446.

<sup>48</sup> See Pub. L. No. 104-104, sec. 551, 110 Stat. 56, 139-42 (1996) (codified at 47 U.S.C. §§ 303(x), 330(c)).

<sup>49</sup> 47 U.S.C. § 303(x).

<sup>50</sup> H.R. Conf. Rep. No. 104-458, at 196 (1996), *reprinted at* 1996 U.S.C.C.A.N. 124, 210.

<sup>51</sup> Even in the case, now on appeal, of the FCC’s recent Order requiring all television receivers to have DTV tuning capability pursuant to a phased-in timetable, the Commission relies heavily on the All Channel Receiver Act as a specific source of statutory authority for its regulatory action. In re *Review of the Commission’s Rules and Policies Affecting the Conversion To Digital Television*, MM Docket No. 00-39, Second Report and Order and Second Memorandum Opinion and Order, FCC 02-230, at paras. 1, 23-28, 35, 45-46 (rel. Aug. 9, 2002).

the cable and multichannel video programming distribution contexts. Congress enacted sections 624A and 629 of the Communications Act, addressing respectively cable compatibility and the availability of navigation devices.<sup>52</sup>

In each of these instances, the nature and extent of proposed mandates on consumer electronics equipment was extensively debated in Congress, and Congress was careful to grant the FCC only limited authority to regulate narrowly defined features and functions of consumer electronics equipment, rather than plenary authority over manufacturers and product design. As discussed in detail above, DTV content protection regulation necessarily flowing from mandating that consumer electronics devices recognize and respond to the broadcast flag would be vastly more intrusive than the regulations that Congress authorized with its UHF, closed-captioning, V-Chip, cable-compatibility, and navigation-device mandates. To impose such regulation absent a prior, explicit grant of congressional authority would be, at a minimum, extraordinary.

Even if the FCC concludes that it has the latitude to depart from precedent and regulate consumer electronics manufacturers absent a specific and explicit congressional grant of authority, the Communications Act does not unequivocally convey jurisdiction over the subject matter at issue: content protection of free, over-the-air broadcasts. Broadcast programming transmitted in-the-clear has never before been treated as controlled content. Only now, with the advances in digital broadcasting and duplication, is there a perceived need for some protection of non-subscription broadcast content.

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<sup>52</sup> See 47 U.S.C. §§ 544a(b)(1), 544a(b)(2), 549(a).

It appears that key Members of Congress are split about the FCC's jurisdiction in this area. Some members of Congress believe that the FCC has authority to impose broadcast flag regulations<sup>53</sup> while others believe that such regulation is outside the FCC's purview.<sup>54</sup> These competing views underscore the lack of clarity with regard to the FCC's jurisdiction in this area.<sup>55</sup> It is no wonder, then, that the *NPRM* seeks comment on "the jurisdictional basis for Commission rules dealing with digital broadcast copy protection."<sup>56</sup>

In particular, the FCC seeks comment on the applicability of section 336(b).<sup>57</sup> Section 336(b) does not appear directly applicable, however, as it only grants authority that the FCC may exercise "[i]n prescribing the regulations required by subsection (a)."<sup>58</sup> Section 336(a), in turn, directs the FCC to "limit the initial eligibility" for advanced television service licenses and to "adopt regulations that allow the holders of such licenses to offer ... ancillary or supplementary services."<sup>59</sup> Digital content protection technologies which consumer electronics devices must utilize have nothing to do with DTV license eligibility or ancillary services offered by broadcast licensees.

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<sup>53</sup> See Letter from Senate Commerce, Science and Transportation Committee Chairman Hollings to FCC Chairman Powell (dated July 19, 2002); Letter from House Energy and Commerce Committee Chairman Tauzin and Ranking Member Dingell to FCC Chairman Powell (dated July 19, 2002).

<sup>54</sup> See Letter from Senate and House Judiciary Committee Chairmen Leahy and Sensenbrenner to FCC Chairman Powell (dated Sept. 9, 2002).

<sup>55</sup> See also *FCC Chairman Michael K. Powell, Agenda and Plans for Reform of the FCC: Hearing Before the Telecomm. and Internet Subcomm. of the House Energy and Commerce Comm.*, 107th Cong. 37-38 (2001) (testimony of FCC Chairman Powell) (stating that "there are issues about copyright and intellectual property protections.... [M]ost of those issues are outside the specific jurisdictional context of the Commission"); *In re Digital Broadcast Copy Protection*, MB Docket No. 02-230, *Notice of Proposed Rulemaking*, FCC 02-231, Concurring Statement of Commissioner Copps (noting that "there is not a majority here to resolve the issue of the Commission's authority").

<sup>56</sup> *NPRM*, at ¶ 10.

<sup>57</sup> *NPRM*, at ¶ 10.

<sup>58</sup> 47 U.S.C. § 336(b) (emphasis added).

<sup>59</sup> 47 U.S.C. § 336(a)(1), (a)(2) (emphasis added).

Reliance upon the FCC’s ancillary authority under Title I is also far from certain.<sup>60</sup> The D.C. Circuit’s recent decision vacating the FCC’s video description rules indicates that Section 1 “does not give the FCC unlimited authority to act as it sees fit with respect to all aspects of television transmissions, without regard to the scope of the proposed regulations.”<sup>61</sup> Similarly, Sections 4(i) and 303(r)<sup>62</sup> only support regulations that are reasonably required for the “necessary and proper” administration of specific FCC subject-matter jurisdiction rooted in other provisions of the Act.<sup>63</sup> As discussed above, the question remains whether the FCC has that subject-matter jurisdiction in the first place.

In these circumstances, the most prudent approach—and one consistent with prior FCC regulation of consumer electronics manufacturers—would be to await a clear grant of statutory authority from Congress. A more aggressive approach would be to test uncharted waters.

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<sup>60</sup> See *NPRM*, at ¶ 10 (seeking comment on the FCC’s ancillary authority to impose broadcast-flag regulations.)

<sup>61</sup> *MPAA v. FCC*, No. 01-1149, slip. op. at 2-3 (D.C. Cir. Nov. 8, 2002).

<sup>62</sup> See 47 U.S.C. §§ 154(i), 303(r).

<sup>63</sup> See *MPAA v. FCC*, slip. op. at 10-11; *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972) (plurality opinion); *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968); *North America Telecomm. Ass’n v. FCC*, 772 F.2d 1282, 1292-93 (7th Cir. 1985), *aff’d* 440 U.S. 689 (1979); *Midwest Video Corp. v. FCC*, 571 F.2d 1025, 1036 n.25 (8th Cir. 1978); *HBO v. FCC*, 567 F.2d 9 (D.C. Cir. 1977).

**X. CONCLUSION**

Philips again commends the Commission for the deliberative, fact-seeking approach it is taking to any implementation of a DTV content protection system. While Philips questions whether the Commission's authority, absent a direct legislative mandate, is sufficient for it to adopt rules implementing such a system, we would urge the Commission, if it does conclude it possesses such authority, to ensure any actions it takes: (1) are narrowly tailored to address a specific, identifiable problem; (2) preserve consumers' fair use expectations; (3) promote competition in the manufacturing and technology marketplaces; (4) promote innovation; and (5) do not impose undue burdens on manufacturers or consumers.

Respectfully submitted,

PHILIPS ELECTRONICS NORTH AMERICA CORPORATION

A handwritten signature in black ink, appearing to read "T. B. Patton", written in a cursive style.

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